portable appliance testing

 arrangements

Safety, Health and Welfare Office

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# 1.Introduction

Portable equipment is defined in the *General Application Regulations* as “*equipment (including hand-held portable equipment) which, because of the manner in which it is used, requires to be moved while it is working, or is designed so that it can be moved while it is working or is moved from time to time between the periods during which it is working*”. Because of the higher risk of damage due to its portability, such equipment must be inspected on a regular basis.

It is the policy of Technological University Dublin (TU Dublin) to carry out the visual checking, inspection, and testing, on a periodic basis, of portable equipment as required by the *Safety Health and Welfare (General Applications Regulations) 2007 and the Safety Health and Welfare at Work* Act 2005.

TU Dublin shall ensure that portable equipment which is exposed to conditions likely to cause \*deterioration and consequent danger and is supplied at a voltage in excess of 125 volts AC, undergoes a visual check by the user and is periodically inspected by a competent person to establish the ongoing safety of the equipment.

Heads of Schools or Functional Areas will ensure that an appropriate Portable Appliance Testing (PAT) maintenance system is in place to identify faulty equipment and repair it or put such equipment out of use if it cannot be safely repaired.

The frequency of tests will vary depending on the particular use of the equipment and the risks involved with the equipment. The systems to minimise the risk may include visual checks, formal inspection, and Portable Appliance Testing.

A full risk assessment will identify all PAT equipment.

# 2. Definitions

***“*Portable equipment”** means equipment, including hand-held portable equipment, which: because of the manner in which it is to be used, requires to be moved while it is working, is designed so that it can be moved while it is working, or is moved from time to time between the periods during which it is working.

Typical examples as follows.

**Sciences**–All portable laboratory equipment including weighing scales, experimental apparatus, mixers, lights, heaters etc.

**Engineering** -All electrical hand-tools in the workshops. All electronics test equipment and experimental apparatus etc.

**Kitchens** -All portable kitchen equipment including mixers etc.

**“competent person’** a person is deemed to be a competent person where, having regard to the task he or she is required to perform and taking account of the size or hazards (or both of them) of the undertaking or establishment in which he or she undertakes work, the person possesses sufficient training, experience and knowledge appropriate to the nature of the work to be undertaken.’

A competent person can carry out combined visual checking, inspection and testing as outlined in training. A competent person will have obtained a certificate of competence after attending an approved course for the Visual Checking, Inspection and Testing of Portable Electrical Equipment. They will be certified competent by the training company for a set period of time. Certification issued by the training company will determine when training needs to be re-certified.

Once trained, the competent person (TU Dublin employee) is designated by the employer (TU Dublin) to act on their behalf in fulfilling legal obligations and therefore will not suffer any disadvantage through the discharge of such duties.

Competency for portable appliance testing (PAT – the term used to describe the examination of electrical appliances and equipment to ensure they are safe to use) may be engaged by external experts and facilitated by in-house employees or carried out by in-house trained employees.

**“Residual current device”** means an electromechanical switching device intended to disconnect a circuit when the residual current attains a stated value under specific conditions.

**Deterioration** All work equipment is subject to varying levels of deterioration. Deterioration could be due to a range of factors, including corrosion, chemical attack, erosion, friction, fatigue, impact damage etc., which in turn can lead to erratic machine behaviour, structural failure, loss of containment of dangerous substances, failure to maintain adequate protection around dangerous parts

# 3. Scope

These arrangements apply to all portable equipment as per the legislation which is exposed to conditions likely to cause deterioration and consequent danger, and is supplied at a voltage in excess of 125 volts AC. It is implemented as appropriate by those who have control over an activity/area where such equipment is present and necessary for the operation of the function. Equipment located in environments where it is safe from accidental damage or environmental degradation and that is rarely moved should not need to be tested unless a risk assessment shows otherwise.

# 4.Responsibilities

### Heads of School/Function

1. To ensure a risk assessment is carried out as outlined in legislation for their School/Function and in doing so, determine if there is portable equipment that necessitates testing.
2. To ensure that all portable equipment within their School/ Function is maintained in a manner fit for safe use.
3. To maintain records in accordance with legislation and guidance.
4. To oversee the coordination and designation of internal or external competent persons.
5. To ensure that any contractors/service providers employed are made aware that they themselves are responsible for the electrical safety of their equipment including the requirement to inspect and test their electrical equipment. The University reserves the right to prohibit the use of any electrical equipment brought onto site by contractors/ visitors/ others.
6. Heads of School/ Function shall ensure all employees, contractors and students are aware of this and that it is implemented in the areas under their control.

### Responsibilities of Others

Where equipment is sourced from a lease contract that falls under the definition above, the company providing the equipment is responsible for that equipment and associated testing and inspection.

### Campus and Estates Office

Will ensure that circuits supplying portable equipment or sockets intended to supply portable equipment is protected by one or more Residual Current Devices or RCDs having a tripping current not exceeding 30 milliamperes to provide necessary protection to prevent danger to any person coming into contact with any live part of the circuit.

### Employees

Should visually check portable electrically operated equipment before they use it. They should not use any tools to carry out this visual inspection (e.g., do not open plug tops to check for loose connections). They should visually check for:

* Obvious damage on the equipment enclosures and insulation
* Obvious damage to the cable or lead supplying the equipment or evidence of any temporary repairs such as taped connections
* Loose connections or loose cabling

Communication of this requirement must be noted in the Faculty/Function risk assessment control section.

Personal equipment (laptops and phone chargers) owned and used by staff/students is the responsibility of the student/staff member. Where personal equipment is subject to portable appliance testing, it is the responsibility of the student/staff member to provide evidence of testing.

# 5.Process

1. The standard school/function risk assessment will determine what needs to be checked and inspected. The identified equipment for testing will be referred to as PAT (Portable Appliance Test) equipment.
2. The nature and frequency of these inspections will vary dependent on the use (as specified by manufacturer or where it is subject to heavy wear and tear) and location of the equipment. In addition to these periodic inspections, the portable equipment and associated leads and plug tops must be tested and certified as being safe by a person competent to carry out such tests.
3. Each tested item must be labelled with the date of the latest test and the initials of the tester. Each School/Function will develop their own inventory.
4. New equipment should be supplied in a safe condition and not require a formal portable appliance inspection or test. However, a simple visual check is recommended to verify the item is not damaged and safe for use. It will then be assessed to determine if future PAT tests are required.
5. Equipment located in environments where it is safe from accidental damage or environmental degradation and that is rarely moved should not need to be tested unless a risk assessment shows otherwise.
6. Any item failing its required test must be withdrawn from service immediately, labelled and not re-used until the fault(s) have been rectified and it has been re-tested and successfully passed the PAT tests.
7. All PAT equipment should have an INSPECTION (Black), PASS (Green) or FAIL (Red) label fixed to it after each inspection or test.
8. The results of PAT inspections carried out must be recorded and kept available for the lifetime of the equipment and be available for inspection by the Health and Safety Authority.

# 6. Review

The PAT arrangements document will be reviewed regularly and communicated.